

October 9, 2025

Sasha Bergman
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

RE: Comments of the Minnesota Department of Commerce, Division of Energy Resources
Docket No. E017/M-25-325

Dear Ms. Bergman,

Attached are the comments of the Minnesota Department of Commerce (Department) in the following matter:

*In the Matter of Otter Tail Power Company's Petition for a Proposed
Energy Storage System Pilot at the University of Minnesota Morris.*

The Petition was filed by Otter Tail Power Company on August 21, 2025.

The Department recommends **approval** and is available to answer any questions the Minnesota Public Utilities Commission may have.

Sincerely,

/s/ Dr. SYDNIE LIEB
Assistant Commissioner of Regulatory Analysis

SR/BP/ad
Attachment



Before the Minnesota Public Utilities Commission

Comments of the Minnesota Department of Commerce

Docket No. E017/M-25-325

I. INTRODUCTION

On August 21, 2025, Otter Tail Power Company (OTP or the Company) filed the Company's *Petition for a Proposed Energy Storage System Pilot at the University of Minnesota Morris*.¹ In the Petition, the Company requests the Minnesota Public Utilities Commission (Commission) approve a proposal to install a 1 MW/4-6 MWh duration battery energy storage system (BESS) pilot project (Pilot) at the University of Minnesota Morris campus (UMN-Morris or University). The Company requests that the Commission authorize future cost recovery through the Company's Renewable Resource Cost Recovery Rider (RRCR).

II. PROCEDURAL BACKGROUND

August 21, 2025	OTP filed the Petition, seeking approval of the Pilot and recovery of the associated costs through the RRCR.
September 9, 2025	The Commission issued its <i>Notice of Comment Period</i> . ²

According to the Notice the following topics are open for comment:

1. Should the Commission approve Otter Tail Power's proposed battery energy storage pilot project on the University of Minnesota Morris campus?
2. Should the Commission allow cost recovery through the Company's Renewable Resource Cost Recovery Rider (RRCR)?
3. Should the Commission require Otter Tail Power to provide updates and reports to the Commission on the battery pilot projects?
4. Are there other issues or concerns related to this matter?

The following comments from the Minnesota Department of Commerce (Department) address the issues raised in the Notice.

¹ *In the Matter of Otter Tail Power Company's Petition for a Proposed Energy Storage System Pilot at the University of Minnesota Morris*, OTP, Petition, August 21, 2025, Docket No. E017/M-25-325, (eDockets) [20258-222289-02](#), (hereinafter "Petition").

² *In the Matter of Otter Tail Power Company's Petition for a Proposed Energy Storage System Pilot at the University of Minnesota Morris*, September 9, 2025, Docket No. E017/M-25-325, (eDockets) [0259-222822-01](#), (hereinafter "Notice").

III. DEPARTMENT ANALYSIS

A. *SHOULD THE COMMISSION APPROVE OTTER TAIL POWER'S PROPOSED BATTERY ENERGY STORAGE PILOT PROJECT ON THE UNIVERSITY OF MINNESOTA MORRIS CAMPUS?*

The Department recommends approval of the 1 MW/4-6 MWh BESS pilot project at the UMN-Morris campus. The Department finds that the Petition satisfies all statutory requirements and is in the public interest. The Pilot is a necessary step for the Company to gain practical experience with BESS technology that directly supports the Company's Integrated Resource Plan,³ and broader state energy goals.

The Department's recommendation for approval is conditioned on the Commission requiring a post-selection compliance filing detailing the chosen technology, vendor, and key commercial terms, and Commission approval prior to any material changes to the project's size, cost, or schedule. The project's collaborative nature with UMN-Morris and the planned knowledge transfer make it a project in the public interest.

A.1. *Energy Storage System Pilot Projects Statute*

The Department finds that the Petition complies with the filing requirements of the Minn. Stat. § 216B.16, subd. 7e,⁴ and provides detailed description for the elements listed in Minn. Stat. § 216B.1645, subd. 2a.⁵ The Petition seeks approval under the ESS Pilot Projects Statute, which permits a utility to petition the Commission to recover costs associated with BESS pilot projects approved by the Commission.

A.1.1. *Information Requirements*

The Department finds that the Petition meets the information requirements of the ESS Pilot Project Statute⁶ and provides information on the following key components required by statute:

- (1) **the storage technology utilized:** A specific vendor has not been selected yet, but candidates include Vanadium Redox Flow, Zinc Aqueous, and Iron Flow batteries. The selection criteria prioritize features such as non-flammability, low operation and maintenance (O&M) costs, long lifespan, recyclability, and eligibility for tax credits.⁷

³ *In the Matter of Otter Tail Power's 2023-2037 Integrated Resource Plan, Order Modifying Otter Tail Power's 2023-2037 Integrated Resource Plan*, July 22, 2024, Docket No. E-017/RP-21-339, (eDockets) [20247-208805-01](#), hereinafter ("OTP IRP Order").

⁴ [Minn. Stat. § 216B.16, subd. 7e](#) (2024) (hereinafter "ESS Pilot Projects Statute").

⁵ [Minn. Stat. § 216B.1645, subd. 2a](#) (2024).

⁶ ESS Pilot Projects Statute (a).

⁷ Petition at 6.

- (2) **the energy storage capacity and the duration of output at that capacity:** The proposed BESS will be 1 MW / 4-6 MWh system, designed to operate in a wide temperature range, from -40°F to at least 120°F.⁸
- (3) **the proposed location:** The project will be located at the UMN-Morris campus. UMN-Morris will provide an easement for the Site and be placed near a public walking path to be used for educational purposes.⁹
- (4) **the purchase and Installation Costs:** OTP expects the project to qualify for a 40% Investment Tax Credit (ITC) and will credit the associated tax benefits to the Company's rate recovery rider. The project's timeline targets a Commission Order in the fourth quarter of 2025 and an operational date in the first quarter of 2027.¹⁰
- (5) **how the project will interact with existing distributed generation resources on the utility's grid:** OTP states that the system will interconnect on the utility side of the University's meter and allow it to capture excess renewable energy from the University to serve the grid's needs. OTP will also extend a feeder line to provide additional capacity for future renewable projects at the University.¹¹
- (6) **the goals the project proposes to achieve:** The goals of the Pilot are to develop internal operational capacity, to assess performance in a cold climate, to optimize the battery's co-dispatch with renewable sources, and to explore use cases for energy arbitrage, congestion, and outages. The Pilot will also support the research and education efforts of the University and will permit the University to request up to 720 hours of annual dispatch for testing purposes during the initial three-year period.¹²

A.2. Technology and Selection Process

The Petition notes that the final technology selection and negotiations with a BESS vendor are ongoing and expected to be conclude by the end of 2025. The Company has received bids for a variety of technologies, such as Vanadium Redox Flow, Zinc Aqueous, and Iron Flow batteries.¹³ The evaluation criteria for vendor selection includes project approach, cost, technical adherence, schedule, staffing, and supplier diversity.¹⁴

⁸ *Id.* at 6 and 7.

⁹ *Id.* at 7.

¹⁰ *Id.* at 7 and 8.

¹¹ *Id.* at 8.

¹² *Id.* at 10 and 11.

¹³ *Id.* at 6.

¹⁴ *Id.* at 5.

The Department recommends that the Commission require a post-selection compliance filing that summarizes scoring, the chosen technology, key commercial terms, warranties, and delivery schedule. Additionally, the Department recommends that the Commission require its approval prior to any advancement should the selected offer materially change in size, cost, or schedule.

A.3. Project Approval and Public Interest

The Petition ties the Pilot to the Commission Order¹⁵ in the Company's Integrated Resource Planning docket, which directed the Company to add 20-75 MW of at least 4-hour duration battery storage by December 31, 2029.¹⁶ The Pilot follows the OTP IRP Order and is intended to provide guidance for future, larger-scale battery. OTP indicates that the Project is in the public interest because it is a step toward fulfilling that requirement.

The Company states that its objective is to solve practical problems at a real site and concurrently evaluate how storage will function across its system. The specific programs include the storage of surplus renewable generation from the University,¹⁷ the improvement of local reliability on the feeder,¹⁸ peak load reduction and congestion mitigation,¹⁹ and an assessment of the non-lithium battery's performance in cold weather conditions.²⁰

A.4. Interaction with the Grid and Local Community

The Pilot will be interconnected to the Company's distribution system in a front-of-the-meter configuration. OTP states that the placement of the Project allows the Company to capture excess renewable energy generation from the University and operate the battery to respond to grid needs.²¹ Additionally, the Company plans to extend its south feeder to the University, which will provide extra capacity for future renewable energy projects. The Petition also outlines a shared goal with the University to be able to request battery dispatch for up to 720 hours annually over the first three years of the project to support its research. The Company reserves the right to deny requests so as to maintain system reliability or for other needs.

The Department concludes that the shared project goals show a clear intent for the project to serve both the University's research goals and the broader grid's needs.

B. SHOULD THE COMMISSION ALLOW COST RECOVERY THROUGH THE COMPANY'S RENEWABLE RESOURCE COST RECOVERY RIDER (RRCR)?

¹⁵ OTP IRP Order.

¹⁶ OTP IRP Order, Order Point 11.

¹⁷ Petition at 8.

¹⁸ *Id.* at 10.

¹⁹ *Ibid.*

²⁰ *Ibid.*

²¹ The Department notes that, unless the BESS is isolated from the bulk electric system, either through congestion or a microgrid disconnected from the bulk electric system, the energy flows to and from the BESS will impact the marginal or load following unit.

The Department recommends allowing recovery via the RRCR, subject to Commission review of OTP's post-selection compliance filing as detailed below. The Department requests that OTP provide in reply comments the specifics of the financial arrangement with UMN-Morris with a description of the exact amount of the UMN-Morris's contribution and the calculation for the compensation payment in the post-selection compliance filing.

The Company seeks to recover storage-pilot project costs through the RRCR under the ESS Pilot Projects Statute,²² which states:

A utility may petition the commission to approve a rate schedule that provides for the automatic adjustment of charges to recover prudently incurred investments, expenses, or costs associated with energy storage system pilot projects approved by the commission under this subdivision. A petition filed under this subdivision must include the elements listed in section 216B.1645, subdivision 2a, paragraph (b), clauses (1) to (4), and must describe the benefits of the pilot project.

Petitions filed under the ESS Pilot Project Statute requires the following elements listed in Minn. Stat. § 216B.1645, subd. 2a (b):²³

A petition filed under this subdivision must include:

- (1) a description of the facilities for which costs are to be recovered;
- (2) an implementation schedule for the facilities;
- (3) the utility's costs for the facilities;
- (4) a description of the utility's efforts to ensure that costs of the facilities are reasonable and were prudently incurred;

The Company seeks authorization for recovery of all reasonable and prudent project costs through its RRCR. The Petition states that the costs associated with the Pilot will not initially affect the utility's base rates, and the Pilot is anticipated to qualify for a 40% Investment Tax Credit (ITC); however, the final financial impacts are contingent upon guidance from the Internal Revenue Service (IRS):²⁴

Costs from the proposed battery project will initially have no effect on Otter Tail Power's base rates.

[...]

The Company expects the BESS pilot project to qualify for the Investment Tax Credit (ITC) at a forty percent level, but final ITC impacts will not be

²² ESS Pilot Projects Statute (b), clauses (1) to (4).

²³ [Minn. Stat. § 216B.1645, subd. 2a](#) (2024).

²⁴ Petition at 3.

fully known until further guidance is issued by the Internal Revenue Service (IRS).

The Petition notes that the total project cost will be reduced by any applicable tax credits and a contribution from UMN-Morris:²⁵

This amount will greatly reduce the initial project costs for Otter Tail Power customers.

The Company will compensate UMN-Morris for up to half of its initial capital contribution, based on ITC benefits.

C. *SHOULD THE COMMISSION REQUIRE OTTER TAIL POWER TO PROVIDE UPDATES AND REPORTS TO THE COMMISSION ON THE BATTERY PILOT PROJECT?*

The Department recommends a comprehensive reporting requirement to ensure the Commission and other stakeholders are fully informed of the Project's progress, performance, and operational learnings.

The Company has proposed a schedule for updates on construction and operational performance, including key metrics such as round-trip efficiency and performance during extreme temperature.²⁶ For a Pilot project of this nature, a comprehensive reporting framework is essential to ensure the Commission and other stakeholders are fully informed of the Pilot's progress and learnings. A more detailed reporting requirement should include, but not be limited to, the following elements:

- **Financial Reporting:** An annual financial report, submitted alongside the annual operational performance data, should provide a detailed breakdown of all project costs, including capital expenditures and operational and maintenance expenses. This report should also include an annual true-up of all costs and credits applied to the RRCR.
- **Research and Learnings:** A formal "lessons learned" report should be submitted to capture insights gained from the project. This would include information on the BESS's technical performance in cold weather, its interaction with the University's distributed generation, and any challenges or successes related to its operation.
- **Risk Mitigation:** As with any new technology, a report on any safety incidents, equipment failures, or maintenance issues would be valuable to the Commission and the public.

These additions would provide the Commission with the necessary data to assess the Pilot's overall effectiveness, verify its prudence, and use the findings to inform future decisions on energy storage technologies and policy.

²⁵ Petition at 7.

²⁶ *Id.* at 13.

D. ARE THERE OTHER ISSUES OR CONCERNS RELATED TO THIS MATTER?

The Department has no other issues or concerns at this time.

IV. DEPARTMENT RECOMMENDATIONS

Based on analysis of the Petition and the information in the record, the Department has prepared recommendations, which are provided below. The recommendations correspond to the subheadings of Section III above.

A. SHOULD THE COMMISSION APPROVE OTTER TAIL POWER'S PROPOSED BATTERY ENERGY STORAGE PILOT PROJECT ON THE UNIVERSITY OF MINNESOTA MORRIS CAMPUS?

- The Department recommends approval of the 1 MW/4-6 MWh BESS pilot project at the UMN-Morris campus.
- A.2 The Department recommends that the Commission require a post-selection compliance filing that summarizes scoring, the chosen technology, key commercial terms, warranties, and delivery schedule.
- A.2 The Department recommends that the Commission require its approval prior to any advancement should the selected offer materially change in size, cost, or schedule.

B. SHOULD THE COMMISSION ALLOW COST RECOVERY THROUGH THE COMPANY'S RENEWABLE RESOURCE COST RECOVERY RIDER (RRCR)?

- The Department recommends allowing recovery via the RRCR.
- The Department requests that OTP provide in reply comments the specifics of the financial arrangement with UMN-Morris with a description of the exact amount of the UMN-Morris's contribution and the calculation for the compensation payment in the post-selection compliance filing.

C. SHOULD THE COMMISSION REQUIRE OTTER TAIL POWER TO PROVIDE UPDATES AND REPORTS TO THE COMMISSION ON THE BATTERY PILOT PROJECT?

- The Department recommends a comprehensive reporting requirement to ensure the Commission and other stakeholders are fully informed of the Project's progress, performance, and operational learnings.

Attachments

CERTIFICATE OF SERVICE

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

Minnesota Department of Commerce
Comments

Docket No. E017/M-25-325

Dated this 9th day of **October 2025**

/s/Sharon Ferguson

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
1	Sasha	Bergman	sasha.bergman@state.mn.us		Public Utilities Commission		Electronic Service		Yes	M-25-325
2	Mike	Bull	mike.bull@state.mn.us		Public Utilities Commission	121 7th Place East, Suite 350 St. Paul MN, 55101 United States	Electronic Service		Yes	M-25-325
3	Ray	Choquette	rchoquette@agp.com	Ag Processing Inc.		12700 West Dodge Road PO Box 2047 Omaha NE, 68103-2047 United States	Electronic Service		No	M-25-325
4	Generic	Commerce Attorneys	commerce.attorneys@ag.state.mn.us		Office of the Attorney General - Department of Commerce	445 Minnesota Street Suite 1400 St. Paul MN, 55101 United States	Electronic Service		Yes	M-25-325
5	Lauren	Donofrio	ldonofrio@otpc.com	Otter Tail Power Company		215 South Cascade Street Fergus Falls MN, 56538-0496 United States	Electronic Service		Yes	M-25-325
6	Sharon	Ferguson	sharon.ferguson@state.mn.us		Department of Commerce	85 7th Place E Ste 280 Saint Paul MN, 55101-2198 United States	Electronic Service		No	M-25-325
7	Jessica	Fyhrie	jfyhrie@otpc.com	Otter Tail Power Company		PO Box 496 Fergus Falls MN, 56538-0496 United States	Electronic Service		No	M-25-325
8	Amber	Grenier	agrenier@otpc.com	Otter Tail Power Company		215 S. Cascade St. Fergus Falls MN, 56537 United States	Electronic Service		No	M-25-325
9	Jason	Grenier	jgrenier@otpc.com	Otter Tail Power Company		215 South Cascade Street Fergus Falls MN, 56537 United States	Electronic Service		Yes	M-25-325
10	Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association		4300 220th St W Farmington MN, 55024 United States	Electronic Service		No	M-25-325
11	Nick	Kaneski	nick.kaneski@enbridge.com	Enbridge Energy Company, Inc.		11 East Superior St Ste 125 Duluth MN, 55802 United States	Electronic Service		No	M-25-325
12	James D.	Larson	james.larson@avantenergy.com	Avant Energy Services		220 S 6th St Ste 1300 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-325
13	Kavita	Maini	kmains@wi.rr.com	KM Energy Consulting, LLC		961 N Lost Woods Rd Oconomowoc WI, 53066 United States	Electronic Service		No	M-25-325
14	Andrew	Moratzka	andrew.moratzka@stoel.com	Stoel Rives LLP		33 South Sixth St Ste 4200 Minneapolis	Electronic Service		No	M-25-325

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						MN, 55402 United States				
15	Matthew	Olsen	molsen@otpc.com	Otter Tail Power Company		215 South Cascade Street Fergus Falls MN, 56537 United States	Electronic Service		No	M-25-325
16	Generic Notice	Regulatory	regulatory_filing_coordinators@otpc.com	Otter Tail Power Company		215 S. Cascade Street Fergus Falls MN, 56537 United States	Electronic Service		No	M-25-325
17	Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us		Office of the Attorney General - Residential Utilities Division	1400 BRM Tower 445 Minnesota St St. Paul MN, 55101-2131 United States	Electronic Service		Yes	M-25-325
18	Cary	Stephenson	cstephenson@otpc.com	Otter Tail Power Company		215 South Cascade Street Fergus Falls MN, 56537 United States	Electronic Service		No	M-25-325
19	Stuart	Tommerdahl	stommerdahl@otpc.com	Otter Tail Power Company		215 S Cascade St PO Box 496 Fergus Falls MN, 56537 United States	Electronic Service		No	M-25-325